

ABSTRACT OF THE DISCLOSURE

Improved vanes of this invention are constructed for use within a variable geometry turbocharger assembly. Each vane comprises an inner airfoil surface oriented adjacent a turbine wheel, and an outer airfoil surface oriented opposite the inner airfoil surface. The inner and outer airfoil surfaces define a vane airfoil thickness. Each vane includes a leading edge positioned along a first inner and outer airfoil surface junction, a trailing edge positioned along a second inner and outer surface junction, a hole disposed within a first axial vane surface substantially parallel to an outer nozzle wall for receiving a respective post therein, and an actuation tab extending from a second axial vane surface opposite from the first vane surface. A key feature of improved vanes of this invention is that they have an airfoil thickness that is greater than 0.16 times a length of the vane as measured between the vane leading and trailing edges.

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